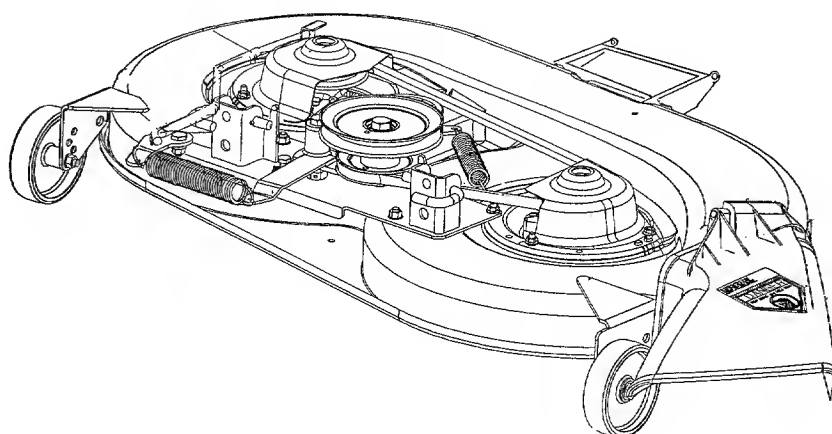


Cub Cadet[®]

by **MTD**[®]

OPERATOR'S MANUAL

**38 Inch Cutting Deck
Model Number
190-250-100**



**Supplement to
Operator's Manual**



IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY
MTD PRODUCTS INC. P.O. BOX 368022 CLEVELAND, OHIO 44136-9722

INTRODUCTION

This manual is a supplement to the operators manual and contains adjustment, removal, installation, maintenance and operation information for the 38-inch mower deck.

SAFETY



WARNING: Read and understand the "SAFE OPERATION PRACTICES" section at the front of the Tractor Operators Manual before operating the tractor.

SERVICE INFORMATION

To service the unit, contact your authorized Cub Cadet dealer. Do not return parts directly to the factory. Provide your dealer with the model serial number of the unit and the part's description.

WARRANTY SERVICE

Refer to the tractor Operator's Manual for warranty information concerning this unit. Left and right sides of the unit are determined from the operator position, facing the direction of forward travel.

Table of Contents

INTRODUCTION	2
SAFETY	2
SERVICE INFORMATION	2
WARRANTY SERVICE	2
SECTION 1: ATTACHING THE CHUTE DEFLECTOR	2
SECTION 2: ADJUSTMENTS	3
SECTION 3: DECK ASSEMBLY - REMOVAL AND INSTALLATION	5
SECTION 4: MAINTENANCE	6
SECTION 5: MOWING	7
SECTION 6: OFF-SEASON STORAGE	8

SECTION 1: ATTACHING THE CHUTE DEFLECTOR

For shipping purposes, the mulching plug has been installed in the mower deck. The mulching plug must be removed to install the chute deflector assembly.



WARNING: Do not operate the mower deck, even with the mulching plug installed, unless the chute deflector has been properly installed.

1. Remove the wing nut, press the 1/4" screw down through the deck and withdraw the mulching plug from the discharge chute of the deck. See figure 1.
2. Remove the hex cap screws, bell washers and hex nuts installed in the deck next to the chute opening.
3. Proper placement of the chute deflector will cover up the warning label on the chute opening. Place the deflector in position as shown. Install the hex cap screws from the underside of the deck and secure with the bell washers and hex nuts. Note: the crowned (rounded) surface of the washers go toward the hex nuts.

4. Refer to **SECTION 5-MOWING** when re-installing the mulching plug.

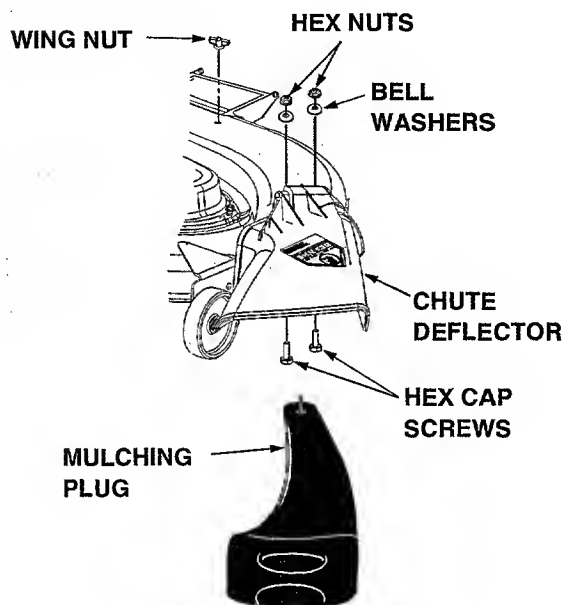


Figure 1

SECTION 2: ADJUSTMENTS

DECK LEVELING ADJUSTMENTS

LEVEL THE UNIT

1. Park the tractor with the unit on a level surface. Use the tractor lift to raise the unit to the transport position. See figure 2.

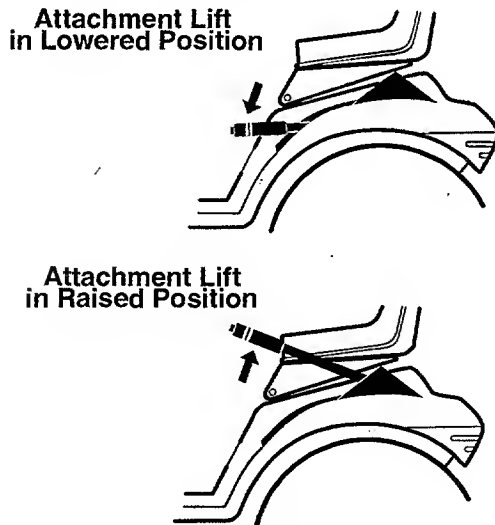


Figure 2

2. Check tractor tire pressure - adjust if necessary.
Front: 12 - 14 PSI (82 - 96 kPa)
Rear: 8 - 10 PSI (55 - 69 kPa)
3. Raise the tractor lift.
4. Set the clearance between the lift bracket (D, Figure 3) and the frame/frame stop to 1/4" or 6mm. Adjust the position of nuts (L) to set the clearance.

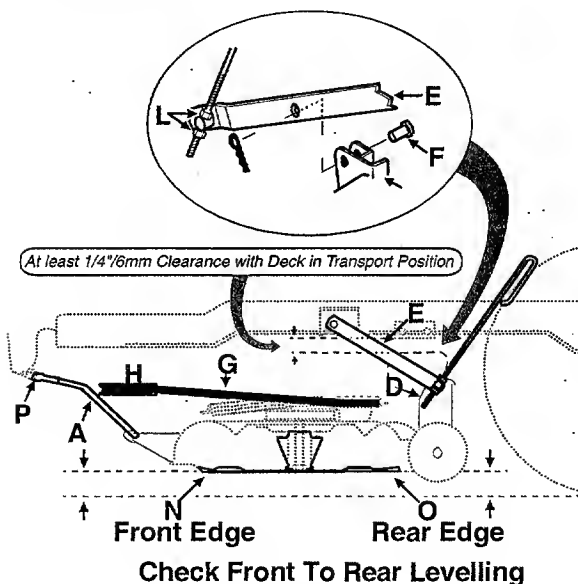


Figure 3

5. Level the deck - side to side:
 - Lower the unit to the ground.

Check side to side levelling.
Both measurements (blade tips to ground) must be equal.

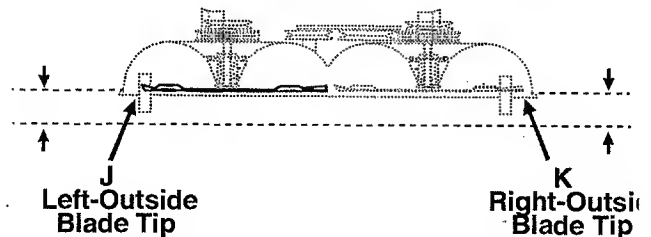


Figure 4

- Rotate the left blade so it is aligned side-to-side with the tractor (Fig. 4). Measure the distance from the outside blade tip (J) to the ground. Rotate the right blade so it is aligned side-to-side with the tractor. Measure the distance from the outside blade tip (K) to the ground. These distances should be equal to each other and to the measurements taken in step 4.
 - Adjust the position of the nuts (L, Fig. 4) to raise or lower each lift link until the unit is level. readjust the lift rods (A) needed.
 - When level, tighten the nuts (L) firmly against the swivel block.
6. Level Deck front to rear:
 - Lower the unit to approximately 3" or 7cm. above ground level.
 - Turn the blades so that one is aligned front to rear with the tractor. Measure the distance from the front edge of the blade (N, Fig. 3) to the ground. Measure the distance from the rear edge of the blade (O) to the ground. Both distances should be equal.
 - To level, adjust the length of the front lift rods (A, Fig. 3) by turning the rod end (P) on each front lift rod, as required.

NOTE: Clearance between the frame and the lift bracket (D) must be no less than 1/4" when the unit is raised up in the transport position.

GAUGE WHEEL ADJUSTMENT



WARNING: Before making any adjustments, place the PTO switch in the "OFF" position, engage the brake pedal lock, turn the ignition key to the "OFF" position, remove the key from the switch and remove the spark plug wire to avoid accidental starting and injury.



WARNING: When adjusting the mower deck, be careful not to cut yourself on the sharp blades.

NOTE: Gauge wheel adjustment should be performed only AFTER the mower deck has been properly leveled.

NOTE: Gauge wheels are intended to prevent scalping of the lawn, and are not meant to be used to set the cutting height. Do not run the deck on the gauge wheels.

To adjust the height of the gauge wheels, place the tractor on a firm and level surface. Refer to Figure 5, and proceed as follows:

1. Place the tractor implement lift handle in the normally desired mowing height setting, then check the gauge wheels for contact or excessive clearance with the surface below.
2. If the wheels contact the surface adjust as follows:
 - a. Raise the implement lift handle to its highest setting.
 - b. Remove the lock nuts to unfasten the rear gauge wheels, shoulder screws, and flat washer from the deck gauge wheel brackets.
 - c. Again place the tractor implement lift handle in the normally desired mowing height setting.
 - d. Insert the shoulder screw and flat washer with the rear gauge wheel into the adjustment index hole that provides approximately 1/2" clearance between the wheel and level surface. Secure with the lock nut.
 - e. Note the position of the index hole used; then install the other rear gauge wheel.

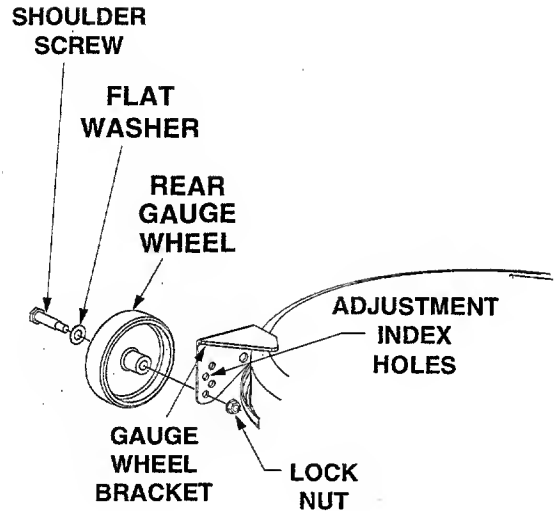


Figure 5

3. If the gauge wheels have excessive clearance with the surface below, lower the wheels to the index hole that provides the approximate 1/2" clearance as described above.

NOTE: Both gauge wheels should be installed in the same relative adjustment index hole location in the gauge wheel brackets.

CUTTING HEIGHT ADJUSTMENT

The mower can be set in multiple positions. Proceed as follows:

NOTE: If multiple positions are used while mowing, it may be necessary to adjust the gauge wheels for each setting to prevent scalping.

1. Pull the tractor implement lift handle up slightly and depress the button on the top of the lift handle.
2. Raise or lower the lift handle to obtain the desired mower deck cutting height.
3. Release the button when the desired mower position is obtained.

NOTE: To return the mower deck to a specific position, note the position of the lift lever indicator before raising or lowering the mower deck.

SECTION 3: DECK ASSEMBLY - REMOVAL AND INSTALLATION

DECK REMOVAL AND INSTALLATION



WARNING: Before removing the mower deck, place the PTO switch in the "OFF" position, engage the brake pedal lock, turn the ignition key to the "OFF" position and remove the key from the switch. Disconnect the spark plug wire for additional safety.

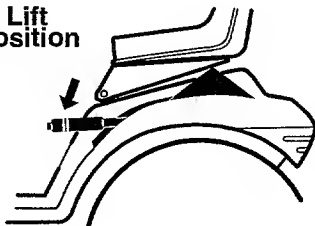
1. Position the tractor and mower deck on a firm, level surface.



WARNING: When handling the mower deck, be careful not to cut yourself on the sharp blades. The deck idler arm lever is spring loaded. Release it slowly.

2. Lower the tractor implement lift handle to its lowest setting (adjust gauge wheels if necessary).

Attachment Lift
in Lowered Position



Attachment Lift
in Raised Position

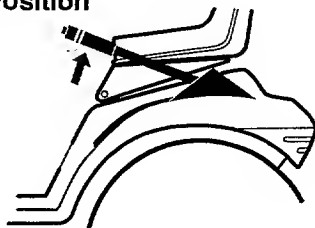


Figure 6

3. Disengage the deck idler arm lever from its stop bracket and release the spring tension by rotating the lever out and rearward (Refer to Figure 7).
4. Remove the rearward end of the PTO belt from the upper pulley of the deck center double-pulley. Engage the deck idler arm lever back into its stop bracket (See to Figure 8).



WARNING: The deck idler arm lever is spring loaded. Release it slowly.

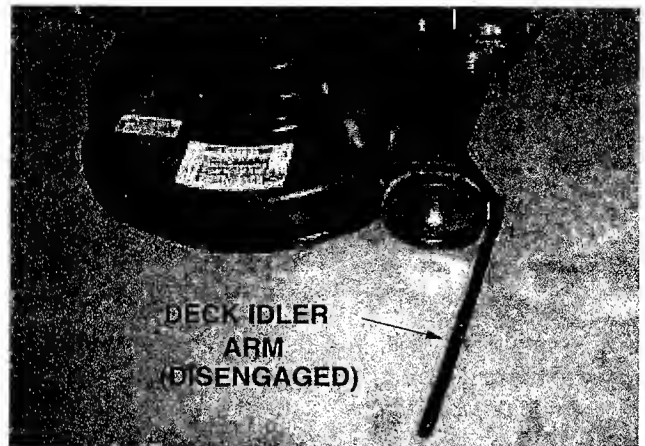


Figure 7

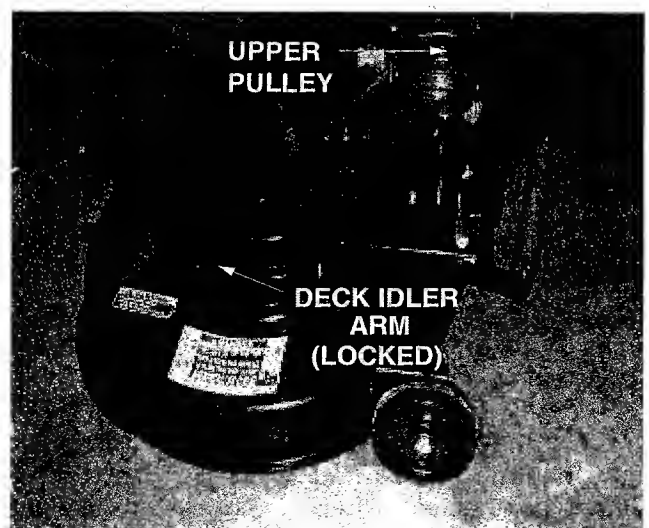


Figure 8

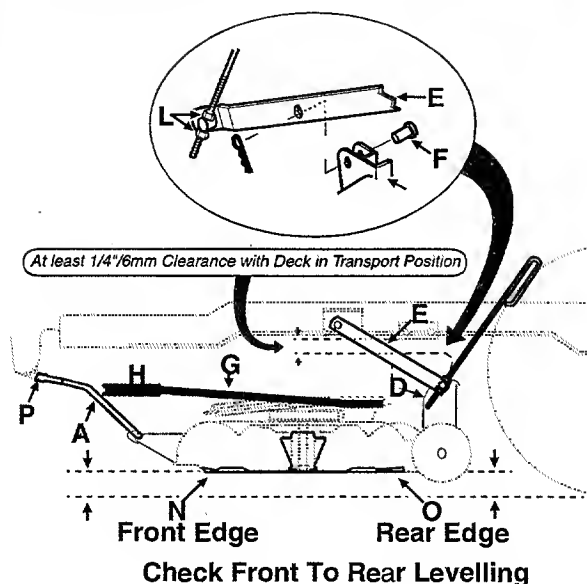


Figure 9

- Remove the hairpin clips from the clevis pins (F) on the left and right rear lift links (E). Remove the clevis pins. See figure 9.



WARNING: The exhaust system is **HOT**. To avoid personal injury, allow the engine and exhaust system to cool before proceeding with the following PTO belt removal instructions.

- Remove the hairpin clips from the weld pins on the front lift rods. Slide the lift rods from the weldpins. See figure 9.
- Raise the attachment lift lever to the highest position.
- From the right side, slide the deck from under the unit.
- Connect the spark plug wire.
- Installation of the deck is in reverse order of deck removal.



CAUTION: To avoid possible equipment damage, make sure that the tractor implement lift handle is raised to its highest setting before sliding the deck under the tractor.

NOTE: It may be necessary to lift each side of the deck and maneuver it slightly to align the support pins with the holes of the lift links. Make certain the support pins are fully extended through the lift links and secured with hairpin clips to prevent the mower deck from disengaging the lift links while mowing.

SECTION 4: MAINTENANCE

CLEANING AND BLADE CARE



WARNING: Before performing any maintenance, place the PTO switch in the "OFF" position, engage the brake pedal lock, turn the ignition key to the "OFF" position and remove the key from the switch to avoid accidental starting and injury.



WARNING: When servicing the mower deck, be careful not to cut yourself on the sharpened blades.

Clean the underside of the mower deck at the end of the mowing season or when buildup of cut material on the underside is noticed. Also remove the belt cover and remove any accumulated grass clippings.

If using the mulching option, clean the underside of the deck frequently. A buildup of grass clippings will prevent proper mulching.

The cutting blades must be kept sharp at all times.

NOTE: Sharpen the cutting and mulching edges of the blades evenly so that the blades remain balanced and the same angle of sharpness is maintained. If the cutting edge of a blade has been sharpened to within 5/8 inch of the wind wing radius (see Figure 58), it is recommended that new blades be installed. New blades are available at your authorized dealer.

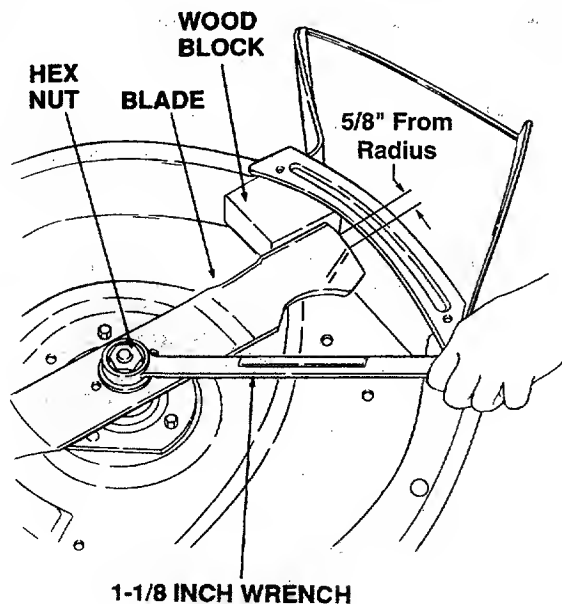


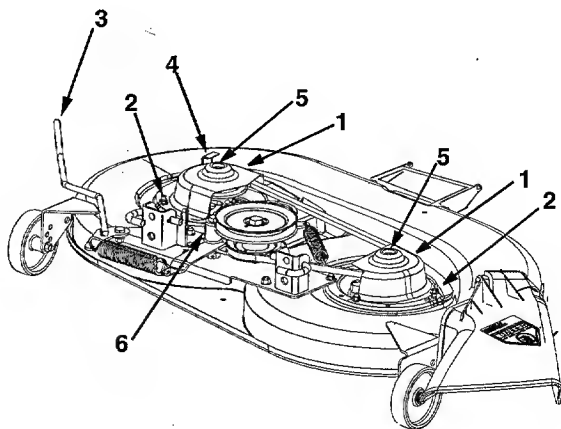
Figure 10

When removing the blades, use a 1-1/8 inch wrench to hold the hex head or the spindle bolt when loosening the hex nut securing the blade. A block of wood may be placed between the deck housing and the cutting edge of the blade to assist in removal of the hex nut securing the blade (Refer to Figure 13). After replacing the blades, apply grease to the exposed threads at the bottom of the spindle bolts to prevent rust buildup.

When replacing the blades, be sure they are installed so that the cutting edges are forward in relation to the direction of rotation, with the wind wings pointed upward. Tighten the nuts to 90 to 110 ft-lbs. (122 to 149 N-m).

LUBRICATION

After every 10 hours of operation and/or before putting the deck into winter storage, lubricate the spindle assemblies and the spindle belt idler arm using 251H EP grease or an equivalent No. 2 multipurpose lithium grease. Excess grease will be expelled from the upper spindle seals. Since the spindle pulley covers the top spindle seal, the expelled grease cannot be seen. When the spindle is fully greased, the expelled grease will cause the top spindle seal to give off a muffled crackling noise. (Refer to Figure 11).



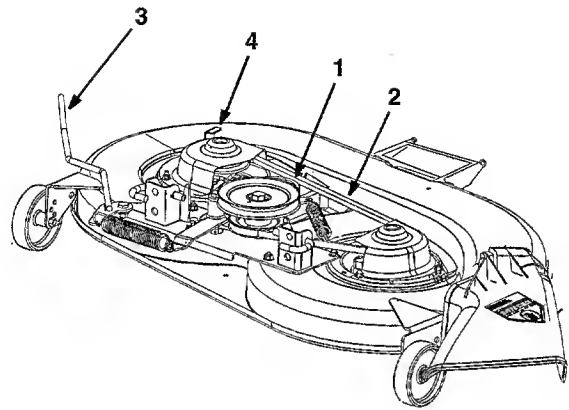
- | | |
|-----------------------|-------------------------------------|
| 1. Spindle Belt Cover | 5. Spindle Assembly Grease Fittings |
| 2. Flange Lock Nuts | 6. Idler Arm Grease Fitting |
| 3. Idler Arm Lever | |
| 4. Stop Bracket | |

Figure 11

SPINDLE DRIVE BELT REPLACEMENT

In order to replace the spindle drive belt, refer to Figures 11 and 12 and proceed as follows:

1. Remove the hardware that secures the spindle belt covers to the deck.
2. Remove the spindle belt covers to expose the belt.
3. Disengage the idler arm lever from its stop bracket and rotate the lever to the outside of the deck to release the spring tension.
4. Pull the flat idler pulley away from the backside of the belt and remove the old drive belt.
5. Install a new belt on the spindle pulleys and position the flat idler pulley against the backside of the belt so that the belt is tensioned. Refer to Figure 12 for the proper routing of the belt.
6. Reinstall the spindle belt covers.
7. Engage the idler arm lever into its stop bracket.



- | | |
|-----------------------|--------------------|
| 1. Idler Pulley | 3. Idler Arm Lever |
| 2. Spindle Drive Belt | 4. Stop Bracket |

Figure 12

SECTION 5: MOWING



WARNING: To avoid possible injury, do not allow anyone in the area opposite the discharge chute while mowing. Although the area has been supposedly cleared of foreign objects, small objects may be picked up and discharged by the mower.



WARNING: Never direct the discharge of material toward bystanders or allow anyone near the machine while in operation.

For best results it is recommended that the first two laps should be cut with the discharge thrown towards the center. After the first two laps, reverse the direction to throw the discharge to the outside for the balance of cutting. This will give a better appearance to the lawn.

Do not cut the grass too short, as the mower will tend to scalp the grass. Short grass invites weed growth and yellows quickly in dry weather.

Mowing should be done with the engine at full throttle. Do not mow at high ground speed.

During certain times of the year and under some conditions, the mower may leave streaks of uncut grass.

Streaking may occur when attempting to mow heavy weeds and tall grass. Under these conditions it may be necessary to go back over the cut area a second time to get a clean cut.

The following practices will help eliminate streaking:

1. Mow the area more often so the grass doesn't get too tall and heavy.
2. Operate the tractor at full throttle and slower forward speeds.
3. Keep the blades sharp and replace the blades when worn.
4. Follow the mowing pattern shown in Figure 13.

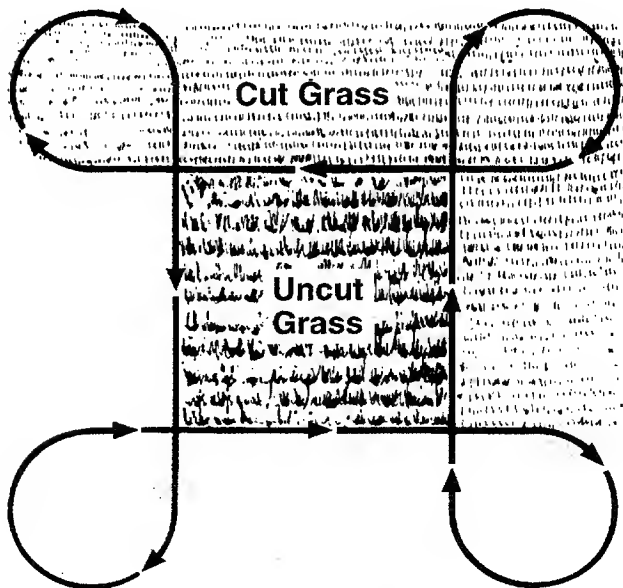


Figure 13

INSTALLATION OF MULCHING PLUG

Before installing the mulching plug, place the PTO switch in the "OFF" position, engage the brake pedal lock, turn the ignition key to the "OFF" position and remove the key from the switch to avoid accidental starting and injury.

1. If the mower deck has been used, clean any buildup of grass clippings from the underside of the deck housing.
2. Lift the chute deflector upward and insert the mulching plug into the discharge opening of the deck (Refer to Figure 14).
3. Position the mulching plug so that the 1/4" screw at the inner end of the plug can be inserted up through the hole in the top of the deck housing. Secure with the wing nut (See Figure 14).
4. To remove the mulching plug; remove the wing nut, depress the 1/4" screw down through the deck and withdraw the plug from the discharge chute. Thread the wing nut onto the screw to prevent its loss.

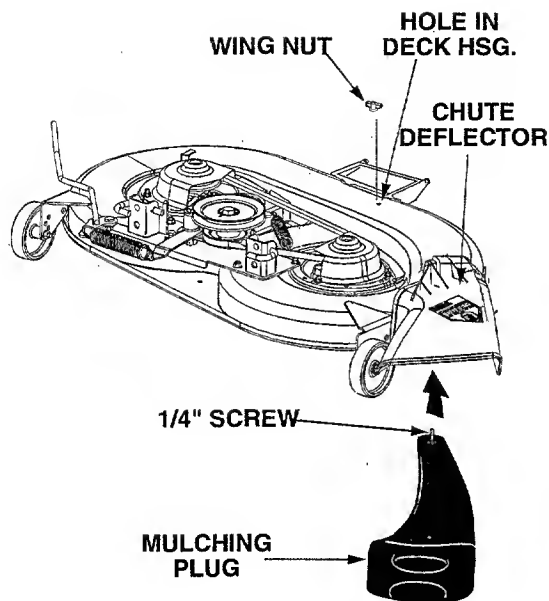


Figure 14

MOWING WITH MULCHING OPTION

1. **Do not cut wet grass.** For effective mulching do not cut wet grass. Wet grass sticks to the underside of the deck prevention proper mulching and dispersal of grass clippings.
2. **Cut no more than 1/3 the length of the grass.** When mulching long grass, it may be necessary to mow twice, lowering the deck another 1/3 of the length for the second cut, and perhaps cutting in a different pattern. Overlap the cut on each pass to help clean up any heavy clippings left on the lawn.
3. **Use a slow ground speed.** Adjust ground speed so clippings can be evenly dispersed into the lawn. When cutting heavy grass, it may be necessary to use a slower ground speed in order to get a well mulched cut.
4. **Always operate the tractor at full throttle.** To obtain the best cut and do the most effective job of mulching, the engine should be run at full throttle.
5. **Clean underside of deck.** Be certain to clean the underside of the deck often to avoid a buildup of grass clippings, which will prevent proper mulching.

SECTION 6: OFF-SEASON STORAGE

Refer to the Operator's Manual Off season Storage instructions.